CHAPTER 8 - IMPLEMENTATION AND FINANCIAL PLAN

INTRODUCTION

The improvements necessary to efficiently accommodate the forecasted aviation demands for Groton-New London Airport have been placed into three phases: Phase I (Short-Term, 2010-2015), Phase II (Intermediate-Term, 2015-2020), and Phase III (Long-Term, 2020-2030).

IMPLEMENTATION SCHEDULE AND PROJECT LIST

A list of proactive capital improvement projects has been assembled from the facility requirements documentation and recommended development plan previously presented. The project list has been coordinated with the Airport Layout Plan drawing set and the Capital Improvement Program, which is continuously updated by airport management and the Federal Aviation Administration. The projects for the first five years are listed in a general priority order. In the second and third phases (years 6-20), the projects are listed primarily as placeholders. The Groton-New London Airport's phased capital improvement program (CIP) and associated costs, entitled Development Plan Project Costs, are presented as Tables 8.1, 8.2, and 8.3 of this chapter (pages 172, 173 and 174 respectively). CTDOT/CAA will develop a CIP and airport work plan that adheres to goals and objectives specified in this Master Plan Update. Furthermore, it is anticipated that the project phasing will invariably alter as state and federal priorities evolve over the coming years.

This development plan is conservative, demand driven, and focused on the maintenance and improvement of existing facilities. It is also a solid plan that represents the Airport's best opportunity to meet the needs of Groton-New London's general aviation community. In addition, the decision to implement or construct a project will be based on such factors as need and funding availability. The ultimate success of Groton-New London Airport does not rely upon the completion of each and every capital item programmed in the development plan. To meet realistic funding expectations, it will be necessary to weigh the items of the development plan in a thoughtful and global manner.

In other words, the State may be required to selectively implement the capital items. Knowing the full scope of development possibilities enables the community to capitalize on opportunities, respond to financial realities, and select projects that are consistent with the overall planning recommendations of the Master Plan.

Table 8.1 - Phase I (2010-2015) Airport Plan Project Costs

	Project Description	Total Cost (a)	State (b)	Federal (c)	Private (d)
In general priority order					
1	Survey and Develop LPV Approach Runway 5-23 (e)	$150,000		$150,000	
2	Replace VASI with PAPI Runway 23	$50,000	$5,000	$45,000	
3	SRE Building – Expand Facility & Remodel (f)	$500,000	$150,000	$350,000	
4	ARFF Building – Modernize	$50,000	$50,000		
5	ARFF Equipment – Replace/Upgrade (g)	$200,000	$200,000		
6	Hangars	$1,000,000			$1,000,000
7	General Permit for Stormwater and Dewatering Wastewaters from Construction Activities (h)	$10,000	$1,000	$9,000	
8	Storm Water Pollution Prevention Plan for construction (h)	$100,000	$10,000	$90,000	
	Subtotal (Phase I)	**$2,060,000**	**$416,000**	**$644,000**	**$1,000,000**

Notes

a. Cost estimates, based upon 2011 data, are intended for preliminary planning purposes and do not reflect a detailed engineering evaluation.
b. CTDOT; includes current airport revenues, cash reserves, state appropriateions, bonds, etc.
c. FAA AIP (Airport Improvement Program) - Unless Otherwise Noted
d. Third party funding
e. Generally funded at 100% AIP
f. Remodeling portion is not AIP eligible.
g. Not eligible for Federal funding under current airport NPIAS classification (general aviation)
h. Required prior to redevelopment of teminal area (see Chapter 7, *Environmental Overview, Potential Water Quality Impacts*)

Table 8.2 - Phase II (2015-2020) Airport Plan Project Costs

Project Description	Total Cost (a)	State (b)	Federal (c)	Private (d)
Not priortized				
✈ Terminal Building Remodeling (e)	$600,000	$250,000	$250,000	$100,000
✈ Terminal Auto Parking Redesign	$300,000	$30,000	$270,000	
✈ Entrance Road Redesign	$100,000	$100,000		
✈ Snow Removal Equipment – Replace/Upgrade	$250,000	$25,000	$225,000	
✈ Hangars	$1,000,000			$1,000,000
✈ Apron Reconstruction - Phase I	$500,000	$50,000	$450,000	
✈ Taxiway Reconstruction - Phase I	$750,000	$75,000	$675,000	
✈ Taxiway Light LED Upgrades – Phase I	$250,000	$25,000	$225,000	
✈ Reconstruct Runway 5-23 (f)	$1,800,000	$180,000	$1,620,000	
✈ Replace Runway 5-23 Lights (g)	$250,000	$25,000	$225,000	
Subtotal (Phase II)	**$5,800,000**	**$735,000**	**$3,715,000**	**$1,100,000**

Notes

a. Cost estimates, based upon 2011 data, are intended for preliminary planning purposes and do not reflect a detailed engineering evaluation.

b. CTDOT; includes current airport revenues, cash reserves, state appropriateions, bonds, etc.
c. FAA AIP (Airport Improvement Program) - Unless Otherwise Noted
d. Third party funding
e. Estimate 50% of project will not be AIP eligible and some portion could be funded privately.
f. Estimated end of pavement servicability is 2016 (20 years after the last runway rehabilitation project).
g. Project combined with runway reconstruction. Lights replaced with LED or current industry standard.

Table 8-3 - Phase III (2020-2030) Airport Plan Project Costs

Project Description	Total Cost (a)	State (b)	Federal (c)	Private (d)
Not prioritized				
✈ Reconstruct Runway 15-33 (e)	$1,900,000	$190,000	$1,710,000	
✈ Replace Runway 15-33 Lights (f)	$250,000	$25,000	$225,000	
✈ Apron Reconstruction - Phase II	$500,000	$50,000	$450,000	
✈ Taxiway Reconstruction - Phase II	$750,000	$75,000	$675,000	
✈ Taxiway Light LED Upgrades – Phase II	$300,000	$30,000	$270,000	
✈ Airport Master Plan Update	$300,000	$30,000	$270,000	
✈ Hangars	$1,000,000			$1,000,000
✈ Replace EMAS Blocks	$3,000,000	$300,000	$2,700,000	
Subtotal (Phase III)	**$8,000,000**	**$700,000**	**$6,300,000**	**$1,000,000**

Notes

a. Cost estimates, based upon 2011 data, are intended for preliminary planning purposes and do not reflect a detailed engineering evaluation.

b. CTDOT; includes current airport revenues, cash reserves, state appropriateions, bonds, etc.

c. FAA AIP (Airport Improvement Program) - Unless Otherwise Noted

d. Third party funding

e. Estimated end of pavement servicability is 2025 (20 years after the last runway rehabiliation project)

f. Project combined with runway reconstruction. Lights replaced with LED or current industry standard.

COST ESTIMATES

Cost estimates for individual projects, based on current dollars (2011), have been prepared for improvements that have been identified as necessary during the 20-year planning period. Facility costs have been formulated using unit prices extended by the size of the particular facility and tempered with specific considerations related to the region, the Airport, and the development site. That being said, these estimates are intended to be used for planning purposes only and should not be construed as construction cost estimates, which can only be compiled following the preparation of detailed engineering design and documents.

CAPITAL IMPROVEMENT PROGRAM (CIP)

To assist in the preparation of the Capital Improvement Program, which CTDOT keeps on file and up to date with the FAA, the first phase of the project/cost list, *Phase I (Short-Term) Airport Plan Project Costs*, appearing on page 172, has been organized by priorities. The projects, phasing, and costs presented in this Master Plan are the best projections that can be made at the time of formulation. The purpose of the project list, phasing, and costs listed here is to provide a progressive projection of capital needs, which can then be utilized in state and federal financial programming. It is realized that, as soon as this long range planning document is published, the project list is dated and; therefore, it will always differ to some degree with the Airport's 5-year CIP on file with the FAA.

PHASING PLAN

The schedules presented in the preceding tables are suggested schedules and variance from them may be necessary, especially during the latter time periods. Attention has been given to the first five years because the projects outlined in this time frame include some critical improvements. The demand for certain facilities, especially in the latter time frame, and the economic feasibility of their development are to be the prime factors influencing the timing of individual project construction. Care must be taken to provide for adequate lead-time for detailed planning and construction of facilities in order to meet aviation demands. It's also important to minimize the disruptive scheduling where a portion of the facility may become inoperative due to construction and to prevent extra costs resulting from improper project scheduling. These scheduling issues can be particularly critical in conjunction with the construction of new hangars, based upon the availability of existing development sites vs. the development of new areas that may require significant upfront infrastructure construction costs.

FINANCIAL PLAN

Funding sources for the capital improvement program depend on many factors, including Airport Improvement Program (AIP) project eligibility, the ultimate type and use of facilities to be developed, debt capacity of the state, the availability of other financing sources, and the priorities for scheduling project completion. For planning purposes, assumptions were made related to the funding source of each capital improvement. The projects costs provided in the Development Plan Project tables are identified with likely funding sources.

SOURCES OF CAPITAL FUNDING AIP

ENTITLEMENT GRANTS

The passage of the Wendall H. Ford Aviation Investment and Reform Act for 21st Century (AIR-21) introduced a new funding source for general aviation airports. The subsequent AIP re-authorizations, Vision 100 and the FAA Modernization and Reform Act of 2012 retained Non-Primary entitlement funding with some changes.

Non-primary entitlement funds[1] are specifically for general aviation airports listed in the latest published National Plan of Integrated Airports (NPIAS), that show needed airfield development. General aviation airports with an identified need are eligible to receive annually the lesser value of the following:

- 20% of the 5-year cost of their current NPIAS value or,
- $150,000
- A funding condition of Non-Primary Entitlement is that Congress must appropriate $3.2 billion or more for non-primary entitlement funds to exist in that fiscal year

For the convenience of the airport sponsor, if a project is anticipated to cost in excess of $150,000, the participating airport can roll over (i.e., save) the Non Primary Entitlement funds up to four years ($600,000), at which time the accumulated total of rolled-over funds can be used for larger projects. The Non Primary entitlement funds are generally earmarked for routine work to preserve and extend the useful life of runway, taxiway, and apron pavements at smaller general aviation airports. However, project eligibility was expanded under Vision 100 to include support facilities, fuel farms and hangars, in addition to the previously approved list of pavement maintenance projects (e.g., pavement seal coating, joint/crack sealing, pavement overlays, patching, marking, clearing/maintaining airfield drainage and perimeter fencing).

AIP DISCRETIONARY GRANTS

The FAA also provides discretionary grants (on a 90%/10% ratio)[2], over and above entitlement funding, to airports for projects that have a high federal priority for enhancing safety, security, and capacity of the airport and would be difficult to fund otherwise. The amount that individual grants vary can be significant in comparison to entitlements and are awarded at the FAA's total discretion. Discretionary grant applications are evaluated based

[1] Groton-New London Airport is a non-primary airport and is currently eligible for entitlement funding dependent on the three conditions listed in this section.
[2] Under Vision 100 the cost sharing ratio of 95% / 5%. This changed in February 2012 to a 90/10% split between the FAA and airport sponsor.

on need, the FAA's project priority ranking system, and the FAA's assessment of a project's significance within the national airport and airway system.

FACILITIES & EQUIPMENT (F&E)

F&E finances major capital investments related to modernizing and improving air traffic control and airway facilities, equipment, and systems. The F&E appropriation provides funds to establish, replace, relocate, or improve air navigation facilities and equipment and aviation safety systems based on their operational uses.

PRIVATE THIRD-PARTY FINANCING

Many airports use private third-party financing when the planned improvements will be primarily used by a private business or other organization. Such projects are not ordinarily eligible for federal funding. Projects of this kind typically include hangars, FBO facilities, fuel storage, and air cargo facilities, exclusive aircraft parking aprons, industrial development areas, non-aviation commercial areas, and various other projects. An example at Groton-New London would be for hangar development, as well as some improvements to the terminal building area, such as rental car space, private offices, and a restaurant.

AIRPORT REVENUES

As with many general aviation facilities, generating the necessary cash flow to balance the operations and maintenance costs of an airport is typically a constant challenge. The capital costs associated with an airport's development program, whether for local matching funds for a state[3] or federal grant, or for 100 percent funding of non-grant capital projects, can be a further daunting challenge for any small airport. As discussed previously, Groton-New London has made significant progress towards fiscal solvency (see *Financial Data*, page 44).

SUMMARY - MASTER PLAN CAPITAL IMPROVEMENT PROGRAM FINANCIAL IMPLICATIONS

The previously presented Airport Plan Project Costs tables (pages 172-174) provide a reasonable estimate of the funding that will be needed to cover the costs of this progressive capital improvement program at the Airport. With the best information available today, the tables provide information related to what projects will be needed, when those projects are likely to be constructed, and how the improvements are likely to be funded (i.e., state, federal, etc.). It is realized that the timing for project implementation will change as

[3] For GON, state and local matching funds are one of the same.

sponsor and FAA priorities evolve; however, the projections of funding needs are reasonable estimates for long-term capital improvement planning purposes.

The financial implications for financing of Airport improvements is probably best summarized in a presentation of the total expected expenditures, broken down by phase and recommended financing method. This information is presented in Table 8.4.

Table 8.4 - Capital Improvement Costs by Phase

Phase	Total Cost (a)	State (b)	Federal (c)	Private (d)
Phase I (2010-2015)	$2,060,000	$416,000	$644,000	$1,000,000
Phase II (2015-2020)	$5,800,000	$735,000	$3,715,000	$1,100,000
Phase III (2020-2030)	$8,000,000	$700,000	$6,300,000	$1,000,000
Totals	**$15,860,000**	**$1,851,000**	**$10,659,000**	**$3,100,000**

a. Cost estimates, based upon 2011 data, are intended for preliminary planning purposes and do not reflect a
b. CTDOT; includes current airport revenues, cash reserves, state appropriateions, bonds, etc.
c. FAA AIP (Airport Improvement Program) - Unless Otherwise Noted
d. Third party funding

As presented in the accompanying tables, the Groton-New London Airport Development Plan cost estimates for an approximate twenty-year planning period, not including maintenance and operational expenses, amount to approximately $15.9 million. The anticipated FAA share is approximately $10.6 million. In addition, approximately $3.1 million are projected to be spent on private projects (e.g., non FAA-eligible hangars, apron development, etc.) that will generate revenue and could be financed through some form of private financing.

Of the state's share, approximately $416,000 are required during the phase one period (Short-Term), $735,000 during the phase two period (Intermediate-Term), and $700,00 during the phase three period (Long-Term).

In addition, state maintenance and operation expenses may increase as the Airport develops and more airport facilities are completed. Revenues generated by these facilities should increase. It is a worthy and feasible goal that operational expenses should not outweigh airport generated revenue. This relationship should, however, be monitored closely so those future imbalances can be anticipated and provided for in the budgeting and capital improvement process.

It should also be noted that projects represented as potentially needed in this Master Plan are based on forecast demand; only those projects that are required to meet actual demand

will be proposed for construction. If demands do not increase as rapidly as anticipated, a number of the proposed projects should be revised, delayed, or potentially eliminated.

Because demand and improvement needs can best be defined in the short-term, the Phase I project list is the most comprehensive and is generally the most challenging to finance. As indicated in Table 8.4 (previous page), federal funding needs could total as much as $644,000 dollars during the five years comprising Phase I; and, state funding needs to match these federal dollars, including projects ineligible for federal participation, could be approximately $416,000. Even with the increases in AIP funding over the past few years, Groton-New London's needs may exceed the capabilities of the FAA to participate.

Also, it may be a significant task for the Airport to fund the state's share of the proposed capital improvement costs, should federal funds become available. Financial implications are significant for both the Airport Sponsor and FAA; yet, an attainable balance can and should be structured.